WHAT IS CLAIMED IS:

1. A heat transfer apparatus comprising:

a thermally conductive member including a base having one or more surfaces adapted to absorb heat from an electronic component and one or more surfaces extending from the base to radiate absorbed heat; and,

a mounting assembly including at least one mounting member directly coupled to the base and for direct attachment to the electronic component so that loading forces for mounting on it the electronic component are not directly applied to the base.

2. The heat transfer apparatus of claim 1, wherein the thermally conductive member is a graphite-based material.

3. The heat transfer apparatus of claim 1, further comprising a compliant force applying mechanism mounted generally on the base for controlling forces applied on the base.

4. The heat transfer apparatus of claim 3, wherein the compliant force applying mechanism includes at least a biasing element, and a force applying actuator member.

5. The heat transfer apparatus of claim 4, wherein the biasing element is a coil spring is disposed about a shaft of the actuator member between lateral edges of the member and the top of the base, the actuator member comprises a pair of radially extending arms, each of which has an opening for receiving a threaded member which is received by the mounting assembly,

whereby by adjusting the threaded members, the actuator member can adjustably compress or relax the coil spring so as to adjust the force on the center of the base.

6. The heat transfer apparatus of claim 1, wherein the mounting assembly includes a pair of mounting members which are interconnected to each other by fastening assemblies, wherein the fastening assemblies extend through openings in the base.

7. The heat transfer apparatus of claim 6, wherein the mounting members include portions that are received within corresponding recesses of the base, and the portions allow direct attachment thereof to the electronic component.

8. The heat transfer apparatus of claim 6, wherein the mounting members are made of a heat conducting material.

9. The heat transfer apparatus of claim 7, wherein the mounting members have a generally L-shaped configuration.

10. A method of mounting a heat transfer apparatus to an electronic component, comprising:

providing a graphite-based heat transfer apparatus including a base having one or more surfaces adapted to absorb heat from an electronic component and one or more surfaces extending from the base to radiate absorbed heat;

providing a mounting assembly including at least one mounting member directly coupled to the base and for direct attachment to the electronic component; and,

mounting the mounting assembly which is coupled to the heat transfer apparatus directly on the on the electronic component so that loading forces for mounting it on the electronic component are not directly applied to the base.

11. The method recited in claim 10 further comprising the step of: applying compliant forces on the base by a compliant force applying mechanism mounted directly on the base.

12. The method recited in claim 11 wherein the compliant forces are applied by the compliant force applying mechanism using a coil spring that is centrally disposed about a shaft of an actuator member between lateral edges of the actuator member and the top of the base.

13. The method recited in claim 11, wherein mounting the mounting assembly to the base includes a pair of mounting members that are interconnected to each other by fastening assemblies, wherein the fastening assemblies extend through openings in the base.

14. The method recited in claim 13, wherein the mounting members include portions which are received within corresponding recesses of the base, and the portions allow direct attachment thereof to the electronic component.

15. A heat transfer system comprising:

a multi-chip module;

a graphite-based heat transfer apparatus including a base having one or more surfaces adapted to absorb heat from the multi-chip module and one or more surfaces extending from the base to radiate absorbed heat; and,

a mounting assembly including at least one mounting member directly coupled to the base and for direct attachment to the multi-chip module so that loading forces for mounting on it the multi-chip module are not directly applied to the base.

16. A heat transfer apparatus comprising:

a thermally conductive member including a base having one or more surfaces adapted to absorb heat from an electronic component and one or more surfaces extending from the base to radiate absorbed heat, the thermally conductive member is a graphite-based material; the surfaces extending from the base includes a plurality of thermally conducting elements;

a mounting assembly including at least one mounting member directly coupled to the base and for direct attachment to the electronic component so that loading forces for mounting it on the electronic component are not directly applied to the base, the mounting assembly includes a pair of mounting members which are interconnected to each other by fastening assemblies, wherein the fastening assemblies extend through openings in the base; and,

a compliant force applying mechanism mounted generally on the base in an area encompassed by the thermally conducting elements for controlling forces applied on the base; the compliant force applying mechanism includes at least a biasing element, and a force

applying actuator member, the biasing element extends between the actuator member and a top surface of the base.

17. The heat transfer apparatus of claim 16, wherein the actuator member includes a shaft, the biasing element includes a coil spring in which the shaft is disposed, the coil spring extends between the actuator member and a surface of the base.

18. The heat transfer apparatus of claim 17, wherein the actuator member includes a pair of radially extending arms, each of which has an opening for receiving a threaded member that is received by the mounting assembly, whereby the actuator member can adjustably compress or relax the coil spring so as to adjust the pressure on the base by adjusting the threaded members.